



# A Unique and Mysterious Place



This blue goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.

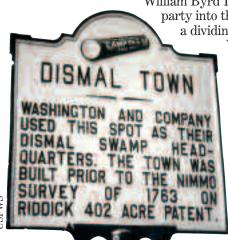
Amazing Rich History of Human Involvement Welcome to Great Dismal Swamp National Wildlife Refuge. Grassroots efforts to protect the swamp were rewarded in 1973 when the Union Camp Corporation donated 49,100 acres of land to The Nature Conservancy. The land was then transferred to the Department of the Interior, and the refuge was officially established the next year.

Located within a two hour drive to 1.6 million residents of southeastern Virginia and northeastern North Carolina, the Great Dismal Swamp National Wildlife Refuge is a marvelous place to connect with nature. With more than 111,200 acres of seasonally flooded wetland forest and the 3,100 acre Lake Drummond at its center, the refuge contains some of the most important wildlife habitat in the mid-Atlantic region.

Human occupation of the Great Dismal Swamp dates back some 13,000 years. By 1650, the area was inhabited only by Native Americans and the very few European settlers who had ventured into the edges of the swamp. In 1665, William Drummond, the first colonial governor of North Carolina, discovered the lake that now bears his name. Sixty years later, Colonel

William Byrd II led a surveying party into the swamp to draw a dividing line between

Virginia and
North Carolina
and is sometimes
credited with
giving the swamp
its forbidding
name. George
Washington
visited the
swamp in 1763.

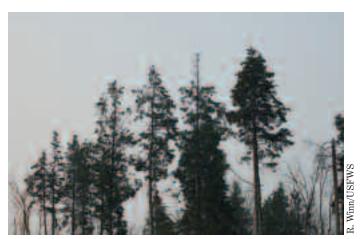


With a group of share-holders, he organized the Dismal Swamp Company to drain, farm, and log portions of the swamp. A five-mile hand dug ditch leading from the western boundary of the refuge to Lake Drummond may be the first "monument" to bear Washington's name.

In the period just before the Civil War, the swamp offered shelter and refuge for freedom-seekers traveling north to the port of Norfolk and beyond. Archeologists are just now uncovering the story of the maroons, those that choose to remain within the cover of the swamp. Their numbers remain unknown. Documented evidence led to the designation of the Great Dismal Swamp National Wildlife Refuge as an official site on the National Underground Railroad Network to Freedom.



The mystery, remoteness, cover, and solitude of the swamp have attracted and inspired people for many reasons. Robert Frost, Henry Wadsworth Longfellow, Harriet Beecher Stowe, and countless others have used the dismal swamp as a stage for their poetry and novels. Stowe's Dred: A Tale of the Great Dismal Swamp, a sequel to her Uncle Tom's Cabin, tells of the dangerous life of the runaways hiding in the swamp.



Atlantic white cedar

Resource
Management—
striving to preserve, protect and
restore a unique
ecosystem

As surrounding populations grew, people began to drastically alter the landscape of Great Dismal Swamp. Agricultural, commercial and residential development consumed more than half of the land within the historical boundaries of the swamp.

Logging proved to be a successful commercial activity, and the entire swamp has been logged at least once. Before the refuge was established, more than 150 miles of roads were constructed to provide access for timbering. Ditches were excavated to improve drainage; the ditch spoils were used to build the adjacent road

#### Fall trees



beds. The roads severely disrupted the natural hydrology found in the swamp, blocking the flow of water across the surface of the land. The result is a swamp that is drier in some locations and is more prone to flooding in other areas. The effects of logging, a drier swamp, and the suppression of wildfires—fires that had cleared the land for new seed germination—created conditions less favorable to the survival of cypress and cedar trees. As a result, red maple and other forest types have become more predominant.

# Protection with purpose

The primary purpose of the refuge resource management program is to restore and maintain the natural biological diversity that existed prior to the alterations caused by humans. Essential to the swamp ecosystem are its water, native vegetative communities, and varied wildlife. Water is being conserved and managed by manipulating water control structures in the lake and the ditches. Plant diversity is restored and maintained through forest management activities, such as selective cutting and prescribed burns that simulate the ecological effects of wildfire. Wildlife is managed by ensuring the presence of required habitats, with hunting as a tool to balance specific wildlife populations with available food sources.



Prescribed fire

# Wildlife and Plant Diversity

#### Plant Communities

Five major forest communities and three non-forest communities comprise the vegetation types found within the swamp. The forests include pine, Atlantic white cedar, maple-blackgum, tupelo-baldcypress and sweetgum-oak popular. The others are a remnant marsh, a sphagnum bog and an evergreen shrub community, also known as pocosin. Red maple is currently the most abundant and widely distributed tree species; it has expanded throughout the swamp due to the lingering effects of past logging, extensive draining and wild fire suppression. Tupelo-baldcypress and Atlantic white cedar, formerly dominant forest communities. currently account for less than 20 percent of the total cover.



Virginia least trillium

There are three rare species of plants deserving special mention, the Virginia least trillium, silky camellia, and log fern. Beds of Virginia least trillium are found in the northwestern section of the refuge and bloom briefly for a two-week period in March. Nearby, although less abundant, silky camellia are found on hardwood ridges. The log fern, one of the rarest American ferns, is more common in the Great Dismal Swamp than anywhere else in the country.



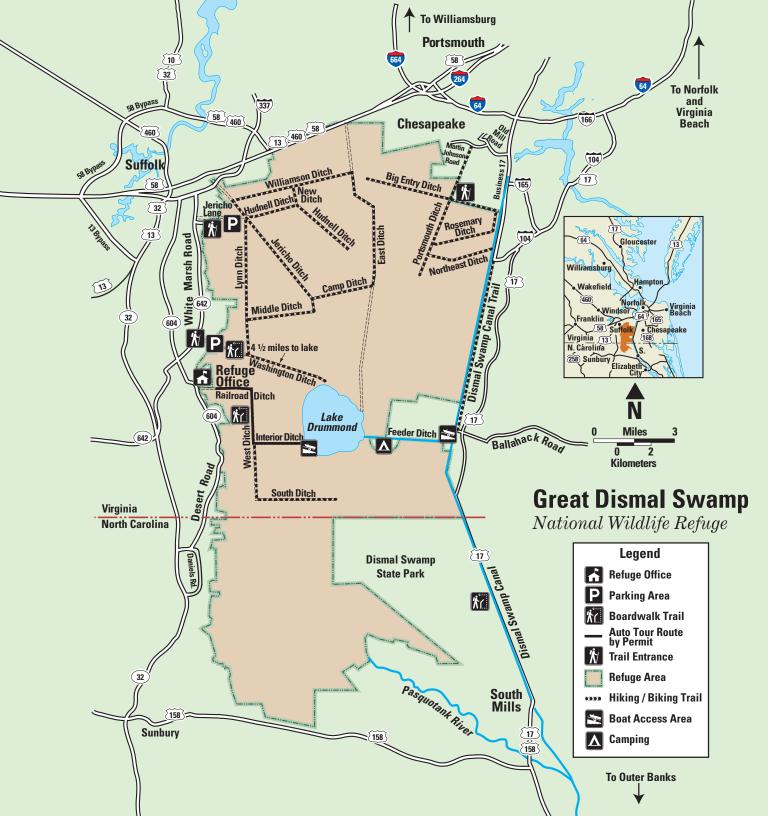
Pine warbler

## Birds

More than 200 bird species have been identified since the refuge's establishment, ninety-six of which have been reported as nesting on or near the refuge. Birding opportunities are best during spring migration from April to June when the greatest diversity of species (particularly warblers) occurs. Two southern species, the Swainson's warbler and Wayne's warbler (a subspecies of the Black-throated green warbler), are more common in the Great Dismal Swamp than in other coastal locations. Winter brings massive movements of blackbirds and robins to the swamp and thousands of ducks, geese and swans can be seen on Lake Drummond. Other birds of interest are the Bald eagle, barred owl, pileated woodpecker, prothonotary warbler, wood duck, and woodcock.



Great purple hairstreak





Palemedes swallowtail on ironweed

Butterflies and Skippers
The butterflies and skippers of the Great Dismal Swamp have attracted butterfly enthusiasts from around the world. There are at least 57 species of butterflies and 49 species of skippers representing two-thirds of the known species inhabiting Virginia and North Carolina. A 4th of July Butterfly Count has been conducted in the Virginia portion of the swamp since 1993 with 42 butterfly species and 42 skipper species being recorded.



Bobcat

#### Mammals

The swamp supports a variety of mammals including otter, bat, raccoon, mink, gray and red fox, and gray squirrel. White-tailed deer are common, and although less often seen, American black bear and bobcat inhabit the area.

Reptiles and Amphibians
The Great Dismal Swamp provides
habitat for a variety of reptiles and
amphibians. Three species of
venomous snakes-cottonmouth,
timber "canebrake" rattlesnake, and
the more common copperhead—
occur here, along with 18 nonvenomous species. Yellow-bellied and
spotted turtle are commonly found in
ditches. An additional 56 species of



Timber "canebrake" rattlesnake

turtles, lizards, salamanders, frogs, and toads have been observed on the refuge.



Eastern box turtle

#### Nature's Calendar

#### Winter

Bear cubs (usually two) are born to sows in late January through February. Great horned owls incubate eggs in late January and February. Red-tailed and red-shouldered hawks begin to court and lay eggs. Red maple trees flower in February. Waterfowl roost with several thousand arriving to rest on Lake Drummond. Wood ducks pair up and search for nest cavities. Winter is often when the swamp is at its wettest due to reduction of surface evaporation and plant evapotransporation.





## Spring

Virginia least trillium blooms in mid-March. Populations of migrating songbird peak early in May, with warblers the most abundant. White-tailed deer fawns (usually twins) are born. An occasional osprey visits the lake. Orchid, coral honeysuckle, yellow jessamine and yellow poplar are in flower. Cinnamon fern develops fiddleheads. Silky camellia begins flowering in late May. As "leaf-out" progresses, the water table drops below the ground's surface and the swamp begins to dry out.



White-tailed deer fawn



Zebra swallowtails puddling

#### Summer

American black bears are most active June through August and more likely to be seen as the breeding season peaks. White-tailed deer bucks are in velvet. Belted kingfishers and great blue herons are active along ditches. Swallowtails "puddle" on moisture found on ditch roads. Trumpet and passion vines bloom. The swamp is usually at its driest, with fire danger high from June to October.



Biker

#### Fall

Autumn colors peak late October through November. Large flocks of robins and blackbirds gather to roost in the swamp. Wild fruits such as pawpaw, blackgum, devil's walking stick and wild grapes are abundant. Re-charge of the swamp's hydrological system begins and benefits from passing tropical storms.

# Visitor Recreational Opportunities



Birding group

Visitors to the refuge may participate in a variety of activities including hiking, biking, nature photography, wildlife observation, hunting, fishing and boating. Most trails are open for hiking and biking only, from sunrise to sunset. The best times for observing wildlife are early morning and late afternoon. The refuge was established for the purpose of protecting and managing this unique ecosystem which includes wildlife and habitat. Therefore, portions of the refuge may be closed periodically to visitor activities in order to accomplish this objective.

### Trails

The refuge offers three main entrances from which visitors will find miles of trails to explore. In the Jericho Lane, Washington Ditch (both located on White Marsh Road in Suffolk, Virginia) and Railroad Ditch (located on Desert Road in Suffolk, Virginia) entrances there are a variety of unpaved ditch roads to provide opportunities for hiking and biking.

Most popular are the Washington Ditch Trail, a four and one-half mile ditch road to Lake Drummond, and the elevated wooden Dismal Town Boardwalk Trail located adjacent to the Washington Ditch parking area. The boardwalk trail meanders for a mile through a representative portion of swamp habitats.

Couple on pier at Lake Drummond



In the Jericho Lane entrance there is a more primitive setting but with four trails to consider. Jericho Ditch and Lynn Ditch are favored by birding enthusiasts, or be challenged by the loop of north Jericho-Williamson-New-Hudnell Ditches (approximately six miles). Parking is available at the trail head two miles east of White Marsh Road.

The Railroad Ditch entrance offers the only auto access to Lake Drummond and is available by special pass from the refuge headquarters. It is recommended to contact the refuge office before a planned visit to inquire on availability of the pass as refuge management and road conditions occasionally restrict access. Within the Railroad Ditch entrance, on West Ditch Road, is found the West Ditch Boardwalk Trail. The 100 yard wooden trail offers wildlife viewing opportunities in a typically flooded wetland setting.

The Portsmouth Ditch entrance, off Martin Johnson Road in Chesapeake, Virginia, is a secondary entrance open for hiking and biking, but without benefit of a designated parking area. Other ditch roads are open for hunting, environmental education activities, research, and resource management activities by permit only.

## Fishing/Boating

Fishing and boating are allowed year-round on Lake Drummond with access through the Feeder Ditch. The Feeder Ditch entrance is a water only access route connecting Lake Drummond with the Dismal Swamp Canal. Vessels must be small enough to portage around a spillway near the lake or to be lifted by electric tram to the higher level of the lake. Lift weight is restricted to a maximum of 1,000 lbs. Vessels are limited to 25 hp

on the Lake. If fishing, a Virginia fishing license is required. Boating access through the Railroad Ditch entrance to the Interior Ditch boat ramp is by permit only April 1 to June 15.

Educational Opportunities
A refuge orientation is available onsite and off-site for organized school, scout, civic, and professional groups by advance reservation. Outdoor classroom activities are to be lead by the teacher or group leader.
Additional resources are available online and by contacting the Visitor Services staff.

### Hunting

Big game hunting of white-tailed deer and American black bear is available by permit during designated periods in the fall and early winter, and in designated areas. Portions of the refuge are closed to other public use activities on hunt and hunter scouting days.

Camping/Picnicking
Overnight use is not permitted; there are no designated picnic areas or facilities on the refuge.

Railroad Ditch Trail



D. Freeman/USFWS

# Safety Tips and Regulations

To protect refuge resources and to ensure a safe and enjoyable visit, please note the following information:

- mosquitoes, ticks, and biting flies may be numerous from May to September; insect repellent and protective clothing are suggested
- visitors must stay on designated trails
- pets must be kept on a hand-held leash at all times
- observe all signs while visiting the refuge; "Area Closed" signs are used to inform the public that the posted area is closed to all entry

West Ditch Marsh



The following activities or items are prohibited:

- collecting (includes catch and release) or harming any plant or wildlife
- handling or feeding any wildlife
- collecting artifacts or historical items
- ditch fishing
- swimming in the ditches or in Lake Drummond
- consumption of alcohol
- firearms and other weapons except as authorized during refuge hunts
- playback recorders because they adversely affect wildlife behavior

A complete listing of refuge regulations can be obtained from the refuge office.

## **Refuge Hours**

Office Hours—located at 3100 Desert Road, Suffolk, Virginia—open Monday-Friday from 7:30 am-4:00 pm. Closed on federal holidays. Refuge trails—Trails are open year round, Sunday through Saturday, sunrise to sunset unless otherwise posted.

# General directions to the Refuge

Freeman/USFWS

From the north: South of downtown Suffolk, VA on Rt13 to Rt32, follow refuge signs.

From the south: Take Rt32 north towards Suffolk, follow refuge signs. From eastern Virginia: Take I664 to Rt58 west, then Rt58 Business west, follow refuge signs.

From eastern North Carolina: Take Rt17 to Rt158 west, then Rt32 north, follow refuge signs.

The Great Dismal Swamp National Wildlife Refuge is one of nearly 550 refuges in the National Wildlife Refuge System administered by the U.S. Fish and Wildlife Service. The National Wildlife Refuge System is a network of lands and waters managed specifically for the protection of wildlife and wildlife habitat representing the most comprehensive wildlife management program in the world. Units of the system stretch across the United States from northern Alaska to the Florida Keys and include small islands in the Caribbean and South Pacific. The character of the refuges is as diverse as the nation itself.

The Service also manages national fish hatcheries, and provides federal leadership in habitat protection, fish and wildlife research, technical assistance and the conservation and protection of migratory birds, certain marine mammals and threatened and endangered species.

Cover photo of American black bear was taken by long-time refuge volunteer and advocate, Pat Cuffee, and is dedicated to her memory.